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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER GUILLERMETY, FRED	
			ART UNIT 2625	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/003,257	Applicant(s) OHTSU, AKIRA	
	Examiner Fred Guillermetty	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities: line 18 of page 10 stipulates the term “he” where it is believed to be intended as “the”.

Appropriate correction is respectfully requested.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 4, 5, 6, 8, 12, 13, 14, and 16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 4 and 12, the grammatical placement of the term “only” renders the claims indefinite. The current wording results in two possible interpretations. One interpretation is that *only* the operation of the printer is stopped when there is a solvable error – as opposed to other operations being stopped. The other interpretation is that the *only* time the operation of the printer is stopped is when the error is solvable – as opposed to not stopping when the error is unsolvable. Examiner believes that the former meaning is Applicant’s intent and has proceeded accordingly.

Clarification is respectfully requested.

With respect to claims 5 and 13, the instant claims recite the limitation “the asynchronous control” in line 18 of page 21 and line 15 of page 24, respectively. There is insufficient antecedent basis for this limitation in the claim.

In order to assist Applicant in overcoming the rejection, Examiner respectfully suggests amending the claim by deleting the word “the” and replacing it with the word “an”.

With respect to claims 6, 8, 14, and 16, the instant claims recite the limitation “the asynchronous control mode” or “the synchronous control mode”, however the claims they depend on only declare an “asynchronous control” or a “synchronous control”.

In order to assist Applicant in overcoming the rejection, Examiner respectfully suggests adding or removing the term “mode” from the respective instances in the claims in such a way as to achieve conformity.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 5, 9, 10, and 13 rejected under 35 U.S.C. 102(e) as being anticipated by Iwadata (US 7,209,247).

With respect to claim 1, Iwadata discloses an image forming apparatus (Figure 1, image processing apparatus) (*col. 3, lines 10-12*) comprising:

a scanner (Figure 1, scanner 1) to read a document and provide image data corresponding to a document image (*col. 3, lines 13-15*);

a printer (Figure 1, printer 2) to form an image corresponding to the image data provided from the scanner (Figure 1, scanner 1) (*col. 3, lines 16-18*);

an error detector (Figure 1, image input/output controller 3) to detect an operating error of the scanner (Figure 1, scanner 1) and the printer (Figure 1, printer 2) that are devices (*col. 1, line 54 to col. 2, line 3 - the controller detects errors*); and

a controller (Figure 1, image input/output controller 3) to stop an operation of the device that cause the error (*col. 1, line 54 to col. 2, line 3 - the non-functioning component is stopped and reset*) and operate the device only that did not cause the error when the error detector detects the operating error (*col. 1, line 54 to col. 2, line 3 - the functioning component is not reset and is allowed to continue working*).

With respect to claim 2, Iwadata discloses an image forming apparatus (Figure 1, image processing apparatus) comprising:

a scanner (Figure 1, scanner 1) to read a document and provide image data corresponding to a document image (*col. 3, lines 13-15*);

a printer (Figure 1, printer 2) to forming an image corresponding to the image data provided from the scanner (Figure 1, scanner 1) (*col. 3, lines 16-18*);

an error detector (Figure 1, image input/output controller 3) to detect an operating error of the printer (*col. 1, lines 48-53*); and

a controller (Figure 1, image input/output controller 3) to suspend the operation of the printer and by operating the scanner (Figure 1, scanner 1) only, completing the read of the document when an operating error is detected by the error detector (Figure 1, image input/output controller 3) (*col. 1, lines 48-53*).

With respect to claim 5, Iwadata discloses the image forming apparatus (Figure 1, image processing apparatus) according to claim 1, further comprising:

means (Figure 1, control panel 6) for setting an image forming condition (*col. 6, line 36 to col. 7, line 7*);

means (Figure 1, *copy key 603*) for deciding whether a synchronous control for operating the scanner and the printer in synchronous with each other for every page of document images is used (*col. 6, line 36 to col. 7, line 7*) or the asynchronous control for operating the scanner and the printer in asynchronous with each other is used when forming an image based on the image forming conditions that are set by the setting means (*col. 6, line 36 to col. 7, line 7 – see print key 605*);

wherein the image forming apparatus (Figure 1, image processing apparatus) is controlled based on the control mode decided by the deciding means (*col. 6, line 36 to col. 7, line 7 – the control panel determines the mode*).

With respect to claim 9, the instant claim possesses the same limitations as claim 1 only in the form of a method. Accordingly, the arguments applied to claim 1 are herein applied, *mutatis mutandis*.

With respect to claim 10, the instant claim possesses the same limitations as claim 2 only in the form of a method. Accordingly, the arguments applied to claim 2 are herein applied, *mutatis mutandis*.

With respect to claim 13, the instant claim possesses the same limitations as claim 5 only in the form of a method. Accordingly, the arguments applied to claim 5 are herein applied, *mutatis mutandis*.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 6 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwadata (US 7,209,247).

With respect to claim 6, Iwadata discloses the image forming apparatus (Figure 1, image processing apparatus) according to claim 5, further comprising:

means for switching the control mode when an error is generated during the image forming operation (*col. 10, line 22 to col. 11, line 17 – see Figs. 17A-17C*).

Iwadata fails to explicitly disclose this switching occurring when in the copying (i.e., synchronous) mode. Instead, Iwadata's exemplary illustration displays this occurring when in the printing mode.

However, the advantages provided while in the print mode would equally apply to the copy mode. Implementing the switching means while in the copy mode as done for the printing mode would advantageously increase the versatility of the device (*col. 11, lines 13-17*).

Thus, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have implemented the switching means while in the copy mode as done for the printing mode, since doing so would predictably and advantageously increase the versatility of the device.

With respect to claim 14, the instant claim possesses the same limitations as claim 6 only in the form of a method. Accordingly, the arguments applied to claim 6 are herein applied, *mutatis mutandis*.

9. Claims 3, 4, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwadata (US 7,209,247) and further in view of Takeda et al. (US 5,845,057).

With respect to claim 3, Iwadata discloses the image forming apparatus (Figure 1, image processing apparatus) according to claim 2.

Iwadata fails to explicitly disclose all the limitations of claim 3.

Takeda, working in the same field of endeavor, discloses: means for judging a degree of the error detected by the error detector (*col. 18, line 56 to col. 19, line 5 - see error processing section*); and means for suspending the operation of the printer only according to the degree of the error (*col. 18, line 56 to col. 19, line 5 - see error*

processing determining table of Fig. 14). This advantageously allows the system to better deal with errors.

Thus, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have implemented Takeda's teachings since doing so would predictably and advantageously allow the system to better deal with errors.

With respect to claim 4, Iwadata discloses the image forming apparatus according to claim 2.

Iwadata fails to explicitly disclose all the limitations of claim 4.

However, Iwadata does disclose suspending the operation of only the printer when it is an error that can be solved (*col. 11, lines 5-17 – when there is an error that can be solved, for instance by restarting the printer component, then only that operation is suspended*).

Additionally, Takeda, working in the same field of endeavor, discloses wherein the control means includes: means for judging whether the error detected by the error detector is an error that can be solved (*col. 18, line 56 to col. 19, line 5 - see error processing section and error processing determining table of Fig. 14*); and means for suspending the operation of the printer when the error is an error that can be solved (*col. 10, lines 3-34 – see Fig. 10*). This advantageously allows the system to better deal with errors.

Thus, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have implemented Takeda's teachings since doing so would predictably and advantageously allow the system to better deal with errors.

With respect to claim 11, the instant claim possesses the same limitations as claim 3 only in the form of a method. Accordingly, the arguments applied to claim 3 are herein applied, *mutatis mutandis*.

With respect to claim 12, the instant claim possesses the same limitations as claim 4 only in the form of a method. Accordingly, the arguments applied to claim 4 are herein applied, *mutatis mutandis*.

10. Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwdate (US 7,209,247) and further in view of Tanaka (US 2005/0024680).

With respect to claim 7, Iwdate discloses the image forming apparatus (Figure 1, image processing apparatus) according to claim 5.

Iwdate fails to explicitly disclose all the limitations of the instant claim.

However, Iwdate does disclose synchronous and asynchronous modes as stipulated in the aforementioned arguments of claim 5 and further discloses the function of copying (synchronous mode) bypassing much of the memory used in other functions (*col. 4, lines 34-47*). This advantageously allows for faster and more efficient copying.

Tanaka, working in the same field of endeavor, discloses a first memory to store image data (*paragraph [0038] – see element 105 of Fig. 1*); compression/expansion means for compressing or expanding the image data (*paragraph [0038] – see element 106 of Fig. 1*); a second memory to store the image data compressed by the compression/expansion means (*paragraph [0038] – see element 107 of Fig. 1*); wherein the document image data read by the scanner is stored in the first memory (*paragraph*

[0042] – see element A of Fig. 1), compressed by the compression/expansion means and stored in the second memory (paragraph [0042] – see element B of Fig. 1), expanded by the compression/expansion circuit (paragraph [0042] – see element D of Fig. 1), stored in the first memory and then, provided to the printer (paragraph [0042] – see element C of Fig. 1). This advantageously allows for improved memory optimization (paragraph [0014]-[0015]).

Thus, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have combined Tanaka's memory system with Iwadate's device, and in particular Iwadate's memory bypass for synchronous mode, since doing so would predictably and advantageously allow for faster and more efficient copying as well as improved memory optimization.

With respect to claim 8, Iwadate discloses the image forming apparatus (Figure 1, image processing apparatus) according to claim 7, further comprising:

means for switching the synchronous control mode to the asynchronous control mode when the synchronous control is decided by the deciding means and an error is generated during the image forming operation (*col. 10, lines 22-36*).

With respect to claim 15, the instant claim possesses the same limitations as claim 7 only in the form of a method. Accordingly, the arguments applied to claim 7 are herein applied, *mutatis mutandis*.

With respect to claim 16, the instant claim possesses the same limitations as claim 8 only in the form of a method. Accordingly, the arguments applied to claim 8 are herein applied, *mutatis mutandis*.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Richter et al (US 7,304,753). Richter discloses a printing system that reacts accordingly to the severity of the error.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Guillermetty whose telephone number is (571)270-5081. The examiner can normally be reached on Mon - Thurs, 8:00AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler L. Haskins can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fred Guillermet/
Examiner, Art Unit 2625

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625